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OCCUPATIONAL

Health & Safety

MAGAZINE

Understanding Allergic Reaction

Workplace Health & Safety Web site: www.whs.gov.ab.ca

Keep Talking Safety for Tangible Results

by Edward (Chic) Thomas

For more than ten years I have been talking to anybody who would listen about how important it is for our workers (the International Brotherhood of Boilermakers) to have a full understanding of their rights and responsibilities under the Alberta *Occupational Health and Safety Act*. There have been many ups and downs along the way, but I am proud to tell you that, at last – with the help of Wally Baer and his staff at Workplace Health and Safety – we now provide all our workers with a copy of the legislation. We have produced a pocket-sized booklet that includes all the same information as the copy of the Act published by the government, but in a more functional format. We have also highlighted the sections that are most relevant to our people.

It all started one day in the spring of 1992. I was in a meeting with several other people who had concerns about safety on the job site. There were safety people, owners and employers, Workers' Compensation Board - Alberta (WCB) representatives, labour people, representatives of safety associations and government people. We all shared a common goal: to reduce both the number and severity of incidents. I remember talking to Dr. Hugh Walker, then managing director of Alberta Occupational Health and Safety (OH&S), about the lack of formal education our workers receive, either on the job or before they get there. The concern was echoed throughout the meeting.

I told the group that we had one of the best safety training programs in the country right there in that room. "Just look at the *Occupational Health and Safety Act* in front of you," I said. "If this Act and its regulations were applied on all job sites, and if the workers had access to the information it provides, then we would all see a great reduction in claims and the cost of claims." They all agreed. But the idea went nowhere.

I did manage to achieve one of my objectives. Dr. Walker introduced me to Keith Stanley, a senior officer with OH&S, who agreed to come to the union hall with other occupational health and safety officers to talk about workers' rights and obligations under the Act and its regulations. At first the workers were skeptical of the government and its motives. But as time passed and more training sessions were held, the workers started to gain an insight into their role in maintaining a safe work site. Although the training was well received and our incident rates had started to decline, this activity was shut down because of changes in government programs and policy.

A couple of years later, in 1994, I attended a meeting of labour people with Stockwell Day, then minister of labour responsible for OH&S. This was a very important meeting, as it was held at the AlPac mill just after the job site had recorded another fatality. There had been numerous incidents while the mill was under construction, and the workers were angry and scared. They wanted, and demanded, action by the employer and the government.

Again I referred to the great safety program embedded in the Alberta *Occupational Health and Safety Act*. I spoke about how important safety training is in achieving a safe working environment, and how important it is for workers to understand that they have the right to work in a safe environment. AlPac agreed to change a few things, and the government agreed to help, but the type of safety training I was suggesting still did not occur.

By this time, the local had become very frustrated about the continuing lack of safety training and the climbing incident rates, along with employers' lack of understanding of these frustrations. We therefore embarked on a standard safety training program of our own design and making. Today we are using CBT (computer-based training) to provide all our members with 25 different safety-related programs. The members have accepted this style of training with great enthusiasm. Also, all members must upgrade their safety tickets every three years. We have a strict policy: "NO safety tickets, NO work order."

We are confident that our emphasis on safety training has a lot to do with the fact that our members are experiencing a huge reduction in lost-time claims and lower WCB costs per claim. And we are particularly proud of our pocketbook version of the legislation. We have plans to produce additional books of this kind soon, for example, books on the regulations, the *Chemical Hazards Regulation* and the Alberta WCB system.

"If this Act and its regulations were applied on all job sites, and if the workers had access to the information it provides, then we would all see a great reduction in claims and the cost of claims."

Ed (Chic) Thomas is the director of health and safety at the International Brotherhood of Boilermakers, Lodge 14, and has been a member of the local for 28 years. He is also an addictions counsellor and the creator and administrator of the Membership Assistance Program.

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How to get more occupational health and safety information

Look up the Workplace Health and Safety Web site at **www.whs.gov.ab.ca**
Contact the Workplace Health and Safety Call Centre at **1-866-415-8690**

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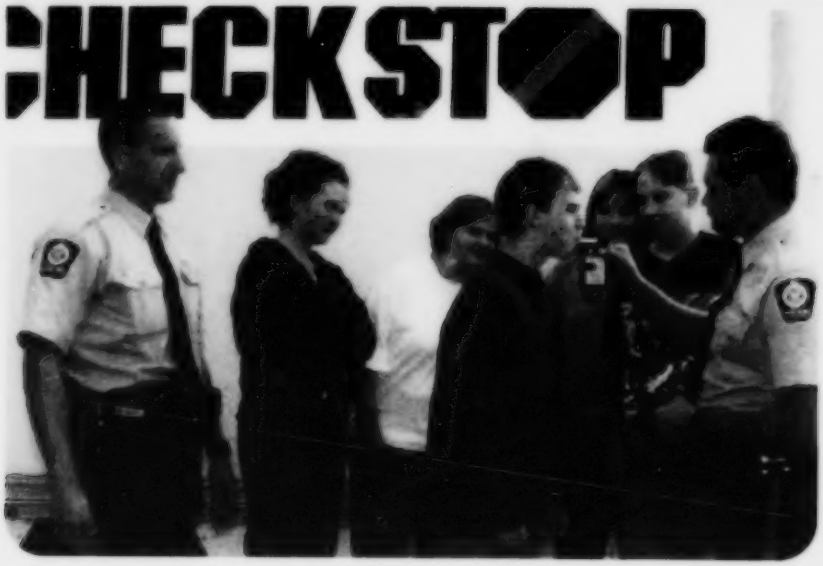


PARTY participants learn first-hand how a Breathalyzer works.

Party on?

Not for PARTY-goers

It's an ongoing dilemma: how to get health and safety messages across to teenagers – those most vulnerable to injury and death through high-risk behaviour. Educational specialists believe you start early, with young teens. You demonstrate how important it is for them to make good decisions in situations where their health or safety is at risk.

Edmonton's PARTY (Prevent Alcohol and Risk Related Trauma in Youth) program does just that, by shocking young teens into awareness. The program is in the final year of gathering statistics for a 10-year study. The midpoint results are impressive, indicating a significant reduction in injury and death in those students that attend the program. As well, the students are asked to complete an evaluation of the program. Some students write personal letters indicating the effect this program has had on them.

PARTY is an injury prevention and health promotion program targeted at teens, specifically grade nine students in Edmonton and surrounding areas. The program promotes personal responsibility through reality education, which enables teenagers to make informed choices about activities and behaviours like drinking and driving, or seat-belt use.

Twice each week, a class of 35 students arrives at the Misericordia hospital at 8:45 a.m. to participate in the in-house PARTY program. Students are accompanied by teachers and interested parents. In the next six hours, the teenagers tour the emergency department – where they witness a trauma simulation, visit an operating room, experience being a patient in an ambulance and go through a Checkstop unit. They are given demonstrations by emergency and operating room nurses, physicians, police officers and paramedics, who talk about their roles, experiences and frustrations. Disabled injury survivors talk with the teens about their struggles, and the students are each given a device (neck collar, splint, special glasses) to wear as they eat lunch, so they can experience, for a short time, the daily challenges for someone with a disability. At the end of the day, students are encouraged to examine their own behaviours and attitudes to risk management.

The PARTY program was founded at the Sunnybrook Trauma Centre in Toronto in 1986 and took shape in Edmonton at the Misericordia Hospital. Since December 1997, 8,650 Edmonton-and-area students have participated. Another 14,000 have attended the program's outreach component, which consists of a school visit by a PARTY coordinator and injury survivor.

For more information about Edmonton's PARTY Program, contact Carrie Chamberland at (780) 930-5890 or cchamber @cha.ab.ca.

Working Towards an Injury-free Alberta

"Alberta injury-free 24/7!" came as the resounding cheer from the delegates of the November 2002 Alberta Injury Control Strategy Summit, which brought together Albertans involved in injury control. Over 80 invited participants reviewed and discussed the information gleaned through a provincial consultation process held in October 2002. The consultation saw over 300 Albertans in six locations across the province provide input into the principles, challenges and priority areas for injury control.

The Honourable Lois Hole, Lieutenant Governor of Alberta, opened the summit, and Mr. Craig DeCecco, an injury survivor, presented the human face behind the statistics that represent the injury problem in the province. Minister of Human Resources and Employment, Clint Dunford, wished the delegates well in their deliberations and highlighted his ministry's new initiative to address workplace injuries, Workplace Safety 2.0.

Priority areas that the Alberta Injury Control Strategy will address are suicide, motor vehicle collisions and falls among seniors and children. Other areas of high concern are injuries associated with: agricultural and rural settings; aboriginal and youth groups; and interpersonal and family violence.

If you are interested in participating in one of the work groups developing plans for the strategy, please contact the Alberta Centre for Injury Control and Research at (780) 492-6019 or BearingPoint at (780) 429-5863.

For more information on the Alberta Injury Control Strategy, see www.med.ualberta.ca/acicr.

Release of New OHS Regulation and Code Delayed

Release of Alberta's revised occupational health and safety rules has been delayed. Eleven existing regulations have been consolidated into a single volume that will be split into the *Occupational Health and Safety (OHS) Regulation* and *Occupational Health and Safety Code*. The *OHS Regulation* deals with administrative processes and general safety topics such as worker protection, equipment and training. The *OHS Code* lists all the detailed, technical requirements that previously appeared in the 11 regulations.

The *OHS Regulation* is to be enacted in February 2003. The *OHS Code* is to be released in September 2003, with a six-month implementation period before strict enforcement. The consolidated *OHS Regulation and Code*, still in draft form, can be found at www.whs.gov.ab.ca.

Farm Safety Is Not a Game

Two entrepreneurial women from the Stony Plain Multicultural Centre are making headway in farm safety with rural children, alerting them to the dangers of living on farms and acreages. Two years ago, program coordinator, Judy Kesanko, and agricultural programmer, Jeanette Smith, designed a 90-minute farm safety program for grades 4, 5 and 6, and it's a hit.

"We see about 2,000 students a year," says Kesanko. It's been so successful that the Heritage Agricultural Society of Stony Plain (better known as the Stony Plain Multicultural Centre) has been funded to develop a similar program for grades 7, 8 and 9.

Facilitators Kesanko and Smith hope their program will reduce the number of farming injuries and deaths in Alberta. Of the 18 farm-related deaths in 2001, five were of children under nine. Another 1,660 farm injuries were reported in that year.

Kesanko and Smith take the program to rural schools whose students live in farming communities in Alberta. They introduce the elementary school program with safety demonstrations, a video and discussion, and then bring out the game, "Farm Safety Is Not a Game." Kesanko says the kids play energetically, showing they have learned the safety lessons discussed earlier. The game is modelled after *Jeopardy*, with the students competing to "keep their mascots safe and not go broke." When there's an incident, Band-aids are applied to the mascot, and cash is handed back to the facilitators to reflect real injury-related costs. After the game, the kids talk about what they've seen and experienced. Inevitably, Kesanko notes, they mention first that they didn't know how fast incidents can happen.

Not long ago in central Alberta, two boys, aged eight and 11, fell into a bailer and were suffocated by the flowing grain. Using a toy gravity wagon and canola, Kesanko demonstrates the speed with which injuries and death can occur. This is a good lesson for rural farm kids, who, as she says, "are out doing the work." She notes that "we have run into nine- and 10-year olds that have been operating farm equipment."

For more information or to book the program for your community, contact:

Jeanette Smith or Judy Kesanko at (780) 963-2777
jmsmith@psd70.ab.ca
jkesanko@psd70.ab.ca

Correction

Occupational Health & Safety Magazine would like to correct an error reported in the article "Oxygen-Deficient Atmospheres," published in the September 2002 issue of the magazine. The article stated: "Two Alberta children died after entering a root cellar where rotting vegetables had consumed most of the oxygen." The Canadian Ground Water Association (CGWA), which contributed its expertise to the investigation into the deaths, wrote to us with the information that "the two teenagers died after entering a water well pit, not a root cellar." They died "by the lack of oxygen attributed to high nitrogen levels in the water well pit due to a phenomenon known as a breathing well." In a breathing well, nitrogen-rich air is forced from the ground up into the water well, displacing oxygen from the pit. This phenomenon is explained in detail in articles available on the CGWA's Web site, www.cgwa.org/breathing.htm.

Setting Health

by Bill Corbett

Employers are accustomed to asking contractors for proof of Workers' Compensation Board coverage and liability insurance before hiring them to do work. They should consider adding a third basic requirement: that contractors have adequate health and safety programs in place.

Too often, contractors, especially small companies, haven't developed safety manuals and ongoing programs of health and safety training, inspections and meetings. Even companies that do have safety programs may find themselves at odds with the practices of the employer or the prime contractor on a particular job.

Either scenario can result in an unsafe work site with the potential for injuries, damaged facilities and equipment, or costly shutdowns. The best way to avoid these pitfalls is to outline and clearly communicate what health and safety measures are expected of all contractors on a work site, and to do so before any work begins.

For employers to sit back and let every work-site contractor take care of health and safety responsibilities individually is a risky strategy.

Alberta's *Occupational Health and Safety Act* says each company at a work site is independently responsible for the health and safety of its workers. But for employers to sit back and let every work-site contractor take care of health and safety responsibilities individually is a risky strategy. Taking this approach does not absolve the employer from liability for any incidents that might occur.

First, this thinking incorrectly assumes all contractors are competent to handle these responsibilities. Second, it ignores the chaos and increased risk that can arise when a bunch of contractors on a work site independently follow their own health and safety programs, without any coordination.

Assessing a contractor's health and safety qualifications

The solution to the first problem is to check a contractor's health and safety qualifications. "An employer should ask potential contractors whether they have safety training programs to ensure their employees are competent to perform a task properly and safely," says Dennis Bolger, president of Calgary-based consulting firm Benchmark Safety. "They should also make sure they conduct a pre-job safety meeting and have in place adequate controls such as work procedures and personal protective equipment. These are things that companies should have as a minimum."

One way to check a contractor's credentials is to ask if the company has a Certificate of Recognition, issued by Alberta Human Resources and Employment. To receive this certificate, companies must have developed a comprehensive health and safety management system that must be audited regularly.

"A Certificate of Recognition is not a silver bullet. But it does indicate a company has developed an ongoing safety program to a known standard," says Murray Sunstrum, executive director of the Canadian Petroleum Safety Council, noting that approximately 80 per cent of Alberta drilling contractors are now certified. Some major oil companies are beginning to demand that service companies have this certificate to qualify for work-bid lists.

Coordinating health and safety for multiple contractors

Still, there is considerable risk of confusion if multiple contractors are on a work site, each with their own safety programs. Here, it makes sense for a single party, known as a prime contractor, to coordinate the activities for the entire work site. Indeed, any work site with two or more companies working at the same time must, by law, have a single prime contractor (see **www3.gov.ab.ca/hre/whs/publications/ pdf/li018.pdf**).

The prime contractor has overall responsibility for health and safety at the work site and must ensure that all parties comply with the *Occupational Health and Safety Act*

and Safety Standards for CONTRACTORS

and associated regulations. The Act, for example, requires the prime contractor to establish and maintain a system, such as an effective health and safety plan, that ensures compliance. The prime contractor is also responsible for ensuring that first aid services, equipment and supplies are available at the work site.

Work-site owners can choose to be their own prime contractor but should do so only if they have sufficient resources and qualifications to meet their responsibilities. An owner who fails, through oversight or ignorance, to assign prime contractor duties to another party, can unwittingly end up as the prime contractor.

Usually, it works well to transfer prime contractor responsibilities to another person or company (preferably in writing). Here, the owner should be certain the other party is capable of fulfilling health and safety duties, since prime contractor responsibilities originate with the owner.

Work-site owners should take care in choosing a prime contractor. "Often the owner wants the project manager or engineer to be the prime contractor," says Bill Tremain, manager of the Alberta Construction Safety Association's Calgary office. "But if it's a small company, it doesn't make sense, because it probably doesn't have the resources or system in place to oversee a large construction site."

It's also important to choose prime contractors who clearly understand their role. "The prime contractor's job is to be a facilitator and a communicator for health and safety at the workplace," says Rick Ennis, construction safety officer with Edmonton-based Christensen and McLean Roofing. "When he does that, he reduces the opportunity for incidents to occur and minimizes the chances of putting workers in compromising positions. Occasionally, we get into a multi-trade situation where the prime contractor doesn't understand his responsibility to communicate, and at times this results in tradespeople unknowingly entering the danger zone, for example, of a hot-tar roofing application."

Choosing the work site's health and safety program

Once satisfied with the subcontractors' qualifications, the prime contractor has to decide whether to let the subcontractors follow their own safety programs or the program the prime contractor has established for the entire work site. Sometimes, it's a mix of both. For example, the prime contractor might defer to the expertise of the subcontractor in the way the latter handles certain risks.

"Standards can vary so much from site to site, so it's important that workers understand what's expected of them," says Ennis. "When we are the assigned prime contractor, we're considered pretty rigid by subcontractors who are not up to speed with our responsibilities. From the outset, we sit down with the subcontractor and go over the site-specific requirements to ensure we have clarity on safety expectations."

It's particularly important on large projects for the prime contractor to carefully orchestrate the activities of the various subcontractors.

Bolger was the head of safety, overseeing 700 companies and 3,000 workers, during the construction of Shell Canada's massive Caroline gas-processing plant. "All the contractors on that construction site had to be oriented to our safety program to work on that site," he recalls. "If you let everyone do their own thing on a big site like that, it can be dangerous." Proper coordination of various contractors can also eliminate the risk of, say, one company moving heavy equipment or pouring concrete while other tradespeople are working below.

The bottom line: the owners or prime contractors are ultimately in charge of the health and safety of the work site. It's important they set adequate safety standards, lay out a well-orchestrated game plan and communicate their expectations with subcontractors before the job begins. It's a proven formula for a safer and more efficient work site.

Bill Corbett is a Calgary writer.

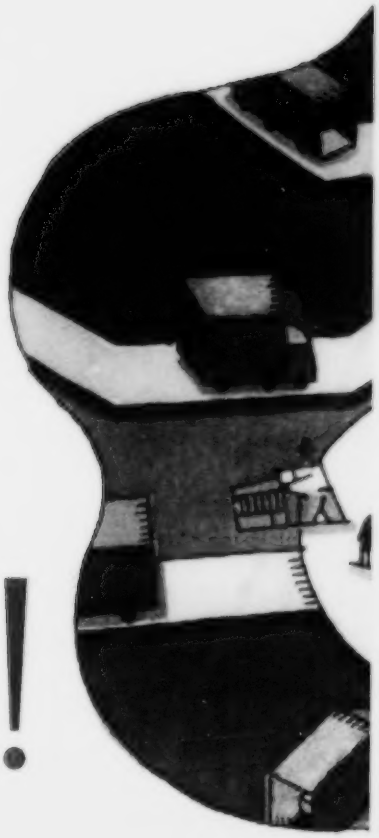
Resources

WEB LINKS

www.teamster.org/sh/FactSheets/contractors.pdf
Contractors' safety and health responsibilities, International Brotherhood of Teamsters.

www.ohscanada.com/LawFile/doomed.asp
Supervisory due diligence, "Doomed If You Don't," by Peter Strahlendorf.

www.civil.ist.utl.pt/~mtcurado/miguel/W99lisb/CIB99.html
Integrating quality and safety in construction companies.



Warehouse Worker, Beware!

by Allan Sheppard

One or two Albertans die each year in warehouse incidents. Others are disabled. Many are injured.

Those racks, stacks and pallets that fill the workspace from end to end and floor to ceiling contain many hazards. Some are hidden. Others are obvious.

Some warehouse equipment is inherently dangerous. The risks can be increased by lack of training, poor maintenance, and lack of protective guards and safety procedures.

Warehouse work may involve heavy lifting and carrying, with frequent repetitions. Some warehouse work takes place in hazardous locations and may involve hazardous materials. Fire is a common concern, complicated in some cases by the presence of flammable materials and packaging.

Air quality can be a silent, often invisible, hazard in some warehouses. Exhausts from internal combustion motors on forklifts and on vehicles left idling at loading docks, gases vented from batteries and battery chargers for electric-powered forklifts, dust and gases shed and vented from materials in storage and their packaging are all potentially dangerous. Some gases, like carbon monoxide, are poisonous; others may cause cancers or aggravate allergies.

A few warehouses are also retail stores. These environments present many challenges, but they also set excellent examples. The designs, plans and operating procedures used in such establishments must allow for the fact that customer behaviour is unpredictable and hard to control. Extraordinary measures help ensure customer and worker safety.

Home Depot Canada has close to 90 retail stores and four distribution centres, says director of safety, André St.-Pierre. "We have to be 50 times more conscious of safety in our retail stores compared to our distribution centres.

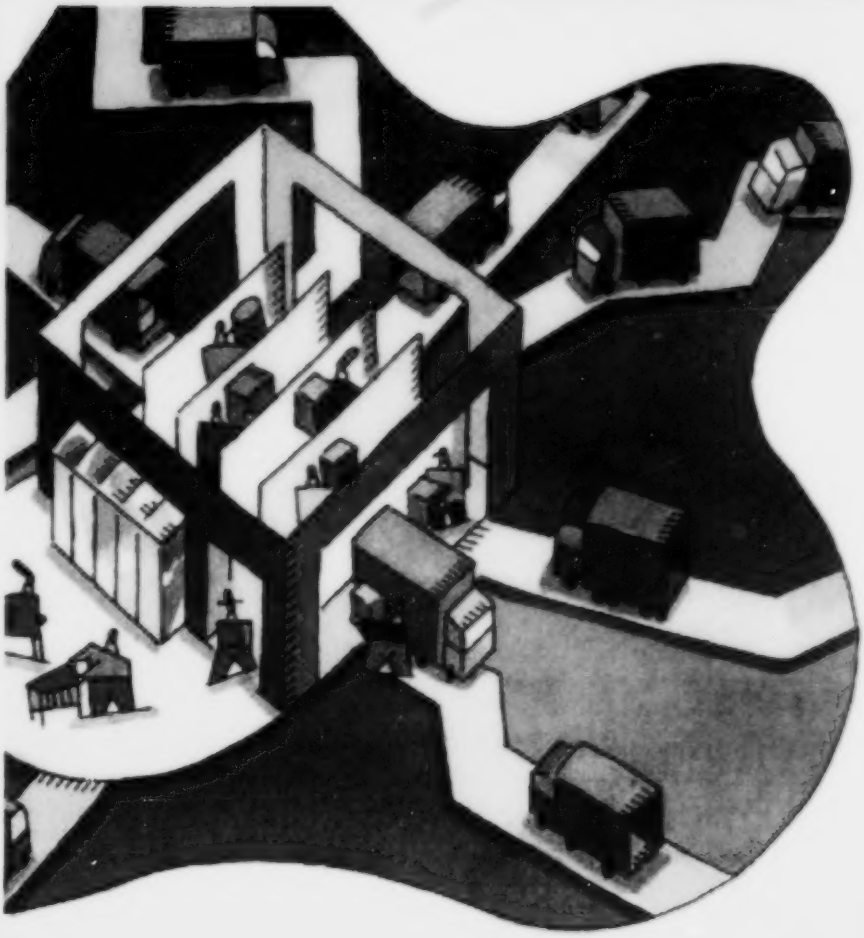
"We follow all occupational health and safety regulations wherever we operate," St.-Pierre adds, "but we take extra precautions when the public is involved, because you can't control who comes into the store or what they will do." Such high standards may not be practical or necessary where access is restricted, but there are lessons to be learned from retail store procedures.

What to do

The *Warehouse Workers Safety Guide*, put out by the Canadian Centre for Occupational Health and Safety (CCOHS), is a handy reference for that purpose. The pocket-sized booklet contains many checklists to help warehouse workers identify and eliminate hazards.

Mike Mills recommends frequent safety assessments and regular safety reviews and inspections. Mills is an occupational health and safety officer at Workplace Health and Safety.

Mills' first concern is **consistency and compatibility in racking and shelving.** "I've seen places with three or four kinds of racking on the same floor," says Mills. "People go to auctions and buy what they think is a good deal." Nothing wrong with that, says Mills, until operators try to combine "mismatched bits and pieces" from different manufacturers. Or until they try to use inappropriate shelving



for the racks – wood or plywood where the manufacturer intended metal, for example.

Aside from instability when structural members or fasteners don't line up and mate properly, substituting non-standard components and materials affects load ratings in unpredictable ways. "You always have to be aware of load calculations," says Mills. You need to know how much each rack and shelf can hold before you place anything on it. Using non-standard equipment and materials complicates the calculations or makes them impossible.

Air quality can be a silent, often invisible, hazard in some warehouses.

Mills also recommends putting the heaviest and largest items at lower levels on racks. That advice is common sense, but it may have to be balanced with another common-sense recommendation: **Put frequently used items in the most accessible locations**, and make sure you don't have to move large or heavy material to get at the items you need regularly.

In "pick" operations, such as retail grocery warehouses, supervisors and managers should carefully **locate popular goods – sale items, for example – to minimize congestion points** as forklift or pallet-jack operators move around the floor to gather material for orders.

Forklifts are obvious hazards, especially when several work together in the same area. Forklift safety is covered in detail in a previous issue of *Occupational Health & Safety Magazine* ("Forklifts: Deceptive and Dangerous," January 2002).

Hazardous materials offer another set of risks in warehouses. The Workplace Hazardous Materials Information System (WHMIS) identifies six classes of hazardous material. **Shippers are required by law to label hazardous shipments and packages using approved universal symbols; warehouse workers should be familiar with the symbols and the procedures required for the safe handling of each.** Workers should also

Checklist of common warehouse hazards[1]

Health and injury risks for warehouse workers

- slips and falls from slippery or cluttered floors
- falls and other incidents due to inadequate lighting, including emergency lighting
- slips or falls from ladders
- injuries from falling objects, racks or rack components
- crushing injuries and trauma from materials-handling equipment and processes
- cuts and amputations from knives, cutters, saws, packaging tools and materials
- burns from electrical conductors or hot equipment
- back pain from lifting heavy or awkward loads or using awkward postures
- allergies and skin disorders from contact with metals and contaminated packages, inhalation of dusts and plant materials
- illness due to exposure to chemicals and pesticides, or contact with infectious materials
- carbon monoxide poisoning from lift-truck exhausts
- battery-charging hazards
- soreness and/or loss of function in wrists and arms from repeated awkward movements or vibration
- fire, frequently complicated by the presence of hazardous and flammable materials and flammable packaging

[1]Adapted from *Warehouse Workers Safety Guide* (Second Edition), DSS Catalogue Number cc273-2/99-8E, Canadian Centre for Occupational Health and Safety, CCOHS, Hamilton, Ontario, 1999 (available from the Alberta Government Library – Labour Building). This guide identifies additional risks and recommends procedures for preventing and responding to incidents.

know how to deal with more than one class of hazardous material in the same category, and what to do in emergency situations involving spills, fire and mixing of materials. MSDS – Material Safety Data Sheets – are important sources of information.

Fire is a serious risk in some warehouses, sometimes complicated by the flammability of stored items and their packaging. "Some warehouses could become fire traps should a fire get started and not be controlled by sprinkler systems," says Mills. For that reason, **warehouses should be non-smoking areas, and warehouse workers should be trained in the use of fire extinguishers**, Mills adds. Maintenance of emergency lighting is very important, and escape aisles should be clearly marked and kept free of clutter. "In a dark, smoky environment, workers need to be able to escape."

Housekeeping is critically important at all times, not just in case of fire. Many injuries result from simple falls – slipping or tripping on objects and spills that should have been picked up, cleaned up, moved or identified and marked for safety.

Falls can also occur through improper use of ladders, or the use of an inappropriate ladder for the job at hand.

Much warehouse work is still done the old-fashioned way – by hand, using the power of the human body. This puts workers at risk for muscle and joint injuries from heavy or awkward work that may also be prolonged and repetitive.

"Pay attention to ergonomics," says Mills. Use equipment and clothing designed for the task, and use proper form and technique for lifting, carrying and moving heavy objects, and for pushing or pulling carts, jacks and dollies. (For more information on back care and lifting, refer to the following bulletins on the Workplace Health and Safety Web site, www.whs.gov.ab.ca: BCL001 through BCL005, ERG013 and ERG014 and PH003).

Most warehouse workers are familiar with the hazards of their work and the necessary preventive measures. The challenge for them and their managers is to guard against the kind of familiarity that brings carelessness or false confidence.

Allan Sheppard is a freelance writer and researcher. He lives in Edmonton.

Resources

WEB LINKS

www.ccohs.ca/products/publications/warehouse.html
Canadian Centre for Occupational Health and Safety summary of *Warehouse Workers Safety Guide* (offered for sale).

www.ehresources.co.uk/eh_health_and_safety_1.htm
Warehouse training case studies.

www.hseni.gov.uk/pdfs/warehouses.PDF
Safety in Warehouses.

www.ahealthyme.com/topic/warehousetips
Warehouse Workers: 12 Safety Tips.

www.worksafesask.ca/files/ont_tsao/ whse2.html
A Warehouse/Dock Safety Analysis checklist from Transportation Safety Association of Ontario.

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

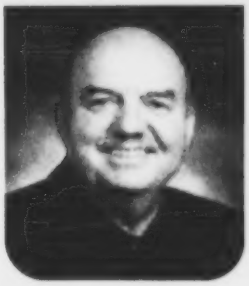
Books

Warehouse Safety: A Practical Guide to Preventing Warehouse Incidents and Injuries
by George Swartz
Rockville, Md.: Government Institutes, 1999
(TS 189.6 S83 1998)

Warehouse Workers Safety Guide
Hamilton, Ont.: Canadian Centre for Occupational Health and Safety, 1998
(HD 7261 W37 1998)

Video

Warehouse Safety: It's No Mystery, 22 min.
Introduces warehouse hazards and safety precautions.
(VC0297)



Clint Dunford,
Minister of Alberta
Human Resources
and Employment

The Workplace Safety 2.0 Initiative

Are you doing EVERYTHING to make sure your staff and friends go home safely at the end of the day?

I am encouraged by the progress on workplace safety that has been made in Alberta. Between 1991 and 2001 the provincial rate for lost-time claims (injuries severe enough for a worker to miss more than the day of the incident) fell from 4.1 injuries per 100 person-years worked, to 3.2 per 100. In the same period, the workforce grew from 1 million to 1.7 million.

I believe we can do more. The Workplace Safety 2.0 initiative has a target for reducing our lost-time claim rate to 2.0 by the end of 2004. That is a 40 per cent reduction, which will mean 15,000 fewer injured workers each year.

Last spring I set up a working group with 15 representatives of industry, labour and safety associations and asked them to develop a strategic plan to hit the target. Then more than 150 people reviewed the plan and brought forward even more ideas at the Minister's Forum on Workplace Health and Safety. It is now up to government, industry, safety associations, unions and workers to make Workplace Safety 2.0 happen on work sites across the province.

To make more information available to Alberta employers and workers, Alberta Human Resources and Employment has already begun expanding its Web site, www.whs.gov.ab.ca, and opened a toll-free call centre, 1-866-415-8690. Also, the ministry has recently tripled the annual number of work-site inspections and increased the number of prosecutions for safety violations.

The government passed legislation on December 3, 2001, to make the following amendments to the *Occupational Health and Safety (OHS) Act*:

- Increasing the maximum fine for an OHS offence from $150,000 to $500,000.
- Introducing penalties other than fines or incarceration for OHS offences, such as providing safety programs or education programs.
- Streamlining the process for updating OHS rules by allowing the creation of an *Occupational Health and Safety Code* to govern the codes of practice for work-site safety.
- Allowing the use of administrative fines similar to those used for traffic violations. The introduction of these fines will depend upon a review of these fines in other jurisdictions to determine their effectiveness.
- Publishing the names of employers with the best and worst safety performance in the province.

But, in the final analysis, government cannot be everywhere. We can educate, inspect and prosecute, but only people on the job site, like you, can prevent injuries and fatalities.

As government and industry move to reduce work-site injuries across the province, your work site will be asked to move workers' health and safety to the forefront of operational decisions. I encourage you to visit our Web site to learn more about Workplace Safety 2.0 and how it will affect you.

It's time to develop a new approach to workplace safety, by making safety the new bottom line.

Clint Dunford, Minister of Alberta Human Resources and Employment.

The **WORKPLACE SAFETY 2.0** initiative aims to reduce the rate of workplace injury by 40% by the year 2004. It will mean 15,000 fewer injured workers each year.

The government will be working with employers, workers, safety associations and unions to make safety the new bottom line for Alberta's 1.7 million workers.

Watch **www.whs.gov.ab.ca/ws2point0** for updates.

Workplace Health & Safety (WHS)

Contact WHS anytime...

For occupational health and safety information and assistance, phone the Call Centre **1-866-415-8690** or go to the WHS Web site **www.whs.gov.ab.ca**.

Sign up for WHS news

You will be notified by email of all new WHS Web site postings when you sign up for this FREE subscription service through **www.whs.gov.ab.ca**.

OHS materials in the Alberta Government Library – Labour Building

The URL for the library is **www.gov.ab.ca/hre/library**.

Access the library catalogue at **draweb.library.ualberta.ca**.

The library houses a large selection of occupational health and safety information materials. You can search the library catalogue over the Web through **draweb.library.ualberta.ca**.

To borrow materials, please contact your local library and make your requests through the inter-library loan process, or visit the library at:

3rd floor, 10808-99 Avenue
Edmonton, Alberta T5K 0G5

(780) 427-8533 or toll-free, 310-0000
(780) 422-0084

How to order Workplace Health and Safety publications

Workplace Health and Safety publications are available from the WHS Web site, **www.whs.gov.ab.ca**, or the WHS Call Centre, **1-866-415-8690**.

WHS is a division of Alberta Human Resources and Employment and falls under the jurisdiction of Minister Clint Dunford.

Understanding

by Norma Ramage

There's an old joke that says the problem with some people is that they're allergic to work.

A not-so-funny reality is that many people are allergic to their *workplace* or, more specifically, to substances they encounter in that workplace.

There have been numerous media stories about "sick building syndrome" and health professionals' allergic reactions to latex gloves. These are only the well-documented tip of the iceberg. The truth is that anyone, whether or not they are already allergy sufferers, can develop an allergic sensitivity to a substance.

What causes an allergic reaction?

Simply put, some individuals' immune systems perceive a substance entering the body as harmful. The body's white blood cells, the internal army that fights bacteria, produce antibodies that combine with the allergen, releasing chemicals throughout the body. One of these chemicals is histamine, which produces many of the common allergic side effects such as hives and skin rashes.

Dr. Ken Corbet, a specialist in occupational medicine and a clinical associate professor at the University of Calgary, describes an allergic reaction as a signal mix-up. "The immune system views the substance as an invasive or infectious agent, when it's not really."

It's a common misconception that allergies are caused by exposure to something new. In fact, the opposite is true.

Allergens can be present in any workplace. Office workers may be affected by felt-tip markers, correction fluid, toner for photocopiers and printers, or mould or dust mites present in buildings.

Workers in the food industry can be sensitized by exposure to flours, grains, shellfish or sulphites. Veterinarians, animal handlers and agricultural workers may be affected by animal dander, fur, saliva or urine. Health workers can be allergic to latex, construction workers to chemicals in paint. Hairdressers can become allergic to shampoos, conditioners and colourants. The list of potential allergens is virtually endless.

Allergic substances can enter the body in four ways: injection, inhalation, ingestion or through the skin. However, in the workplace, allergens generally enter the body through the skin or by inhalation. Each method produces a distinct set of symptoms, explains Dr. Corbet. "Inhaled allergens typically cause eye and nasal problems similar to hay fever, such as a runny nose and red eyes. They can also cause breathing problems such as wheezing, shortness of breath and chest tightness. Allergens that enter the body through the skin cause a contact dermatitis that looks like eczema."

It's a common misconception that allergies are caused by exposure to something new. In fact, the opposite is true. The process of developing an allergy is called *sensitization* and, depending on the substance and the individual, that can take weeks, months and sometimes years. Dr. Sammy Youakim, an occupational medicine physician with Healthserv, an occupational health and safety medical clinic in Edmonton, says that over time the immune system becomes sensitized to a substance it recognizes as harmful and "becomes primed and ready to attack. What happens then is actually an overreaction by the immune system, causing allergic symptoms."

Once a person is sensitized to an allergen, says Dr. Youakim, even a minute amount can trigger a reaction. For example, in cases of latex glove allergy, latex molecules in the air have triggered symptoms; the person doesn't actually have to wear the gloves. Once a person is sensitized, symptoms can crescendo, with continued exposure provoking increasingly more severe responses.

Who can develop an allergy?

Virtually anyone, says Dr. Corbet. A family history of allergies is a strong factor when it comes to developing sensitivities to organic allergens, such as pollens. It's also true that smokers may be more likely to develop allergic

Allergic Reaction

breathing problems, and someone with chronic dry skin may be more prone to allergic dermatitis. However, when it comes to chemical allergens, Dr. Corbet says, "most people are at equivalent risk," whether or not they have a personal or family history of allergies.

Robin Churchill, a Ph.D. student at Guelph University, had no family history of allergies, but she developed an allergic dermatitis to crab, although she had previously eaten the seafood with no problems. After several weeks of analyzing raw crabmeat, she developed itchy, bleeding hands. "Handling crab was the only thing I was doing differently from a few weeks before," she recalls, "so I started wearing vinyl gloves." Unfortunately, the vinyl gloves made her eczema even more painful. "I don't know if I was allergic to the vinyl or the powder inside it," she says, but when she switched to powderless latex gloves, her skin problems vanished. Interestingly, Churchill has now discovered that eating crab causes a swelling and redness around her mouth.

What substances cause allergic reactions?

Some substances have been identified as more likely to be sensitizers, including latex, platinum metal, formaldehyde, red cedar, the isocyanates found in automotive paint, flour, mould and dust mites, but virtually any substance can create an allergic reaction in somebody. The literature on allergies includes examples like the logger who was allergic to moss on trees and the paperboy who reacted to newspaper ink. "It's hard to predict who's going to be allergic to anything," says Dr. Youakim.

Given that the range of allergens in the workplace can be immense, identifying the particular substance an individual is reacting to can sometimes be a puzzle worthy of Sherlock Holmes. Dr. Youakim says individuals who suspect they have an allergy should keep a diary indicating when they started to feel unwell, what they were doing at the time and where they were doing it. "As doctors, we need a concise and very specific history. We need a pattern. If the diary shows they experienced symptoms in room A and not in room B, that gives us valuable information."

Once the sensitizer is discovered, what's the next step?

"We have to balance the allergic reaction against a person's need to work," says Dr. Corbet. The exposure can often be managed, as in the case of allergic contact dermatitis where wearing gloves can solve the problem. Masks and protective clothing may also help manage some allergies. More efficient air circulation and air cleaning systems can also limit exposure. But sometimes, says Dr. Corbet, the sensitive individual must leave the offending work environment.

It seems obvious that one way of preventing allergic reactions in the workplace would be to set exposure standards, similar to those in place for carcinogens and other toxic materials. The problem, says Dr. Youakim, is that once a person is sensitized to an allergen "there is no safe level of exposure."

The matter is further complicated by the fact that a level that may sensitize one person may have no effect on the employee working next to him. However, says Dr. Youakim, people striving to set guidelines can use common sense. "If the sensitization level at one plant with a certain exposure level is three per cent, and the sensitization rate at a second plant, where the exposure level is higher, is five per cent, you might conclude that levels at the first plant are safer in terms of causing allergies."

However, since everyone is different, says Dr. Youakim, "It's rare to have a specified level below which allergies won't be set up."

People who are concerned that they have an allergic reaction should go to a doctor, says Dr. Corbet. Since allergies are difficult to diagnose, even for trained professionals, Dr. Corbet cautions against trying to diagnose yourself.

Norma Ramage is a freelance writer and communications consultant living in Calgary.

Resources

WEB LINKS

www.clearbreathing.com/disease/cascade.asp
The Allergic Cascade.

www.intelihealth.com/IH/ihtIH/WSIHW000/7945/8218/174513.html?d=dmtContent
What Are Allergies And Who Is At Risk?

www.ncchem.com/accommod.htm
Accommodating the Allergic Employee in the Workplace.

www.hooked-on-nails.com/overexposure.html
An article about sensitization due to overuse of chemicals used during nail decoration and care.

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

Books

"Multiple Chemical Sensitivity: Ideopathic Environmental Intolerance"
State of the Art Reviews, Occupational Medicine
vol. 15, no. 3.
Philadelphia: Hanley & Belfus, 2000
(RB 152 M84 2000)

"Workers with Multiple Chemical Sensitivities"
State of the Art Reviews, Occupational Medicine
vol. 2, no. 4.
Philadelphia: Hanley & Belfus, 1987
(RA 1229 W674 1987)

by Bob Christie

In this issue I am completing the list of Web sites produced by not-for-profit organizations with a national mandate. Here I should add that while I think many private companies' sites are as worthwhile as not-for-profit sites, the former are in the business of building business. They inevitably reflect the company's bias and include some form of self-promotion. In fact, some of these sites are nothing but advertising. These I tend to discount, since the Web should be about more than advertising.

For the next issue I will select national sites with a profit perspective, but which also provide real content.

Here are more not-for-profit sites,

which are good candidates for your favourites list:

Health Canada, Office of Laboratory Security (MSDS Source)
www.hc-sc.gc.ca/pphb-dgspsp/msds-ftss/index.html

Human Resources Development Canada, Occupational Health and Safety (Labour Operations)
info.load-otea.hrdc-drhc.gc.ca/~oshweb/homeen.shtml

Human Resources Development Canada, Federal Labour Legislation, Canada Labour Code, Part I (Parts II and III can also be accessed)
info.load-otea.hrdc-drhc.gc.ca/federal_legislation/part1/part1.htm

CANOSH (Canada's National Occupational Health and Safety Web site)
www.canoshweb.org/en/

Canadian Auto Workers, Health Safety & Environment
www.caw.ca/whatwedo/health&safety/index.asp

Department of Justice Canada (Canada Labour Code)
laws.justice.gc.ca/en/L-2/

Communications, Energy and Paperworkers Union of Canada, Health, Safety and Environment
www.cep.ca/health_safety/health_e.html

St. John Ambulance Canada, Health and Safety Training
www.sja.ca/english/health_safety_training/index.asp

I.W.A. Canada, Health and Safety Web page
www.iwa.ca/WEBSITE/h&s-contents.html

CLC - Health & Safety, Day of Mourning April 28th
www.clc-ctc.ca/health-safety/mourning.html

Workinfonet.ca, Workplace Issues and Supports, Occupational Health and Safety (a Web site list of Web sites)
www.workinfonet.ca/cwn/english/index.cfm?cat=6&sub=69

Workers Health and Safety Centre, Ontario, Canada
www.whsc.on.ca/

Workplace Health and Safety Division, Manitoba Labour and Immigration
www.gov.mb.ca/labour/safety/

Yukon Workers' Compensation Health and Safety Board
www.wcb.yk.ca/

Nova Scotia Environment and Labour Occupational Health and Safety Division
www.gov.ns.ca/enla/ohs/

Workers' Compensation Board of BC, WorkSafe online
regulation.healthandsafetycentre.org/s/HazardousProductsAct.asp

Workers' Compensation Board of Prince Edward Island
www.wcb.pe.ca/

Society of Petroleum Engineers, Health Safety and Environment
www.spe.org/spe/cda/views/general/speDisciplineHome/0,1481,1648_2342,00.html

Bob Christie is a partner at Christie Communications Ltd., a multimedia development company in Edmonton. Bob supplies most of the Web link resources for the articles in this magazine.

Partnerships in HEALTH and SAFETY

What is Parnerships?

Partnerships in Health and Safety is a province-wide injury prevention program sponsored co-operatively by government, labour and industry.

For more information about the Partneerships program, call (780) 427-8842 or toll-free 310-0000.

Partnerships Goes Global!

The Partnerships Program has undergone unprecedented growth over the past five years. In 1997, 1,000 employers held valid Certificates of Recognition (CORs) in Alberta. Today there are 4,134 COR holders representing between 30 and 40 per cent of the Alberta payroll.

Interest in the program from outside Alberta is also growing. Partnerships staff have given presentations to interested representatives of other provinces. Ontario has developed a Partnerships program of its own, and British Columbia, which has historically focused on a strict regulatory approach to health and safety, is developing a program based on Alberta's. The intention is to have CORs accepted in both Alberta and B.C. by the end of 2003. The Yukon, New Brunswick and Newfoundland have also expressed interest in Partnerships. The program has even had an effect on the other side of the globe, as Australia has developed a program based on Partnerships, and China is floating a pilot project and has requested additional information.

For more information about the Partnerships program, call (780) 427-8842 or toll-free 310-0000.

Certificate of Recognition Holders Reduce Their Lost-time Claim (LTC) Rates *

Industry Sector	LTC Rate for COR Holders	LTC Rate for Non-COR Holders
Petroleum	2.3	3.4
Wood Products	1.7	6.9
Steel and Metal Fabrication	6.5	10.0
Alberta Construction Safety Assoc. Industries	3.1	5.0
Selected Health Industries	3.8	4.5
Alberta Municipal Health and Safety Association	3.1	3.5

** Source: Alberta Human Resources and Employment, 2001 data.*

Effective Safety Meet

A great way to get everyone on the same page

by Rose Ann McGinty

Mention safety meetings and you'll likely get one of two responses: fear, if you're leading the meeting; apathy or disdain if you have to attend.

The meeting leader thinks, "Will anyone show up (and do I really want them to)? Will they laugh at me, listen, fall asleep, work on something else . . . ?"

And the other participants think, "What a waste of time; I have a gazillion things to do. But at least they have good doughnuts. Oh wait, I'm on a diet; this meeting will make me gain 10 pounds. What a stupid meeting."

You want to provide opportunities for regular two-way communication between management and staff.

WHY hold a safety meeting?

If safety meetings are so painful, why the heck do we have them? Maybe this is something we need to think more about. Are you holding safety meetings "because we have to" or "because it's one of the health and safety program requirements"? If so, then I'd ask you to think some more.

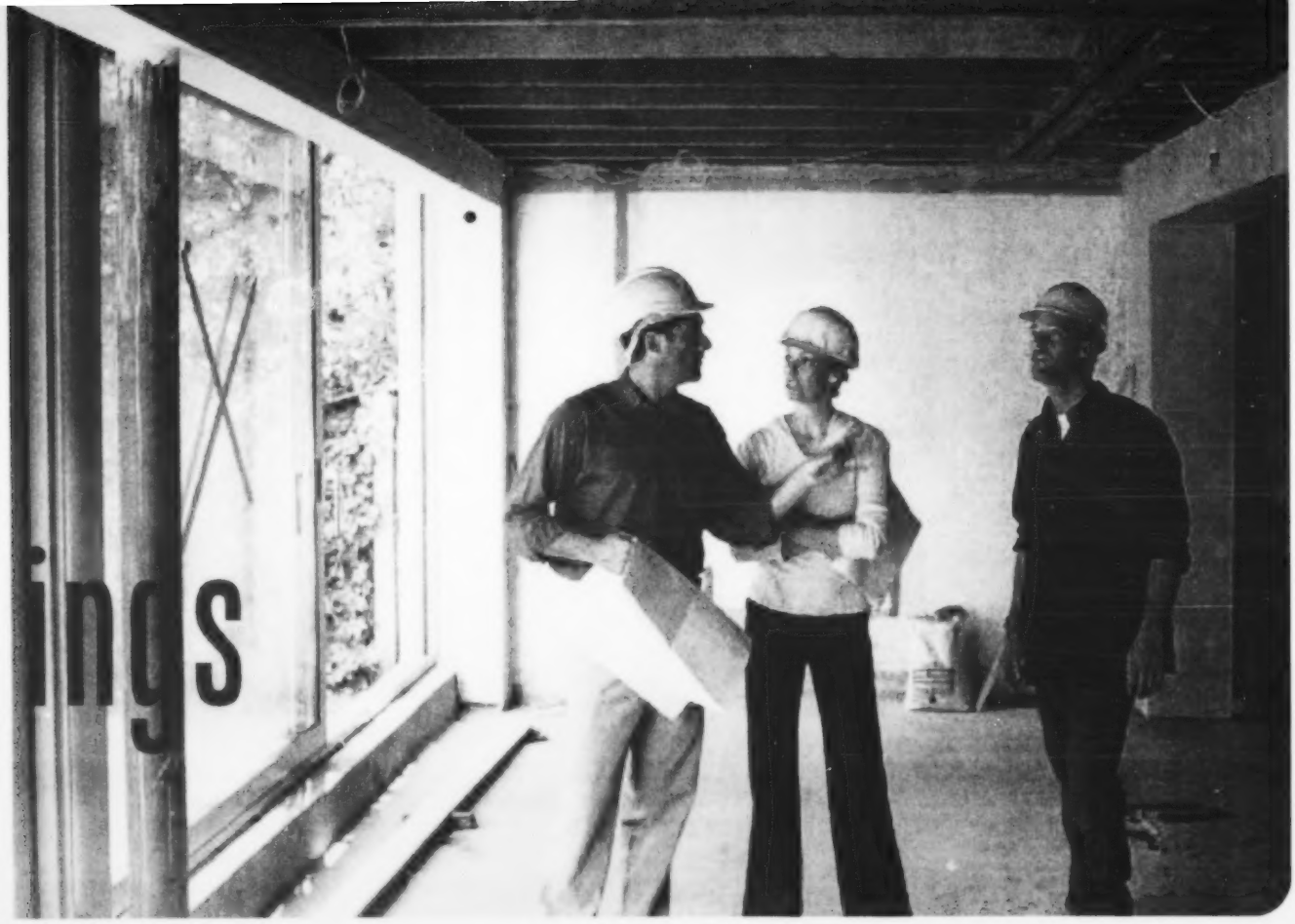
Saying you hold safety meetings because you have to is like saying you put up guardrails for workers working above a certain height because the regulations say you have to. The answer isn't exactly wrong; it's just not the *best* answer. The better reason for putting up guardrails is because you don't want workers to fall and become injured. (The regulations were implemented as a result of all the falls that were happening.)

In the same vein, you should be holding safety meetings because you want to make sure that everyone is on the same page when it comes to the safe and efficient running of your organization. You want to share information and you want to get information. You want to know if there are problems in the workplace, and you want to know what is working well. In short, you want to provide opportunities for regular two-way communication between management and staff.

Health and safety programs incorporate safety meetings because research shows that good, open, regular communication about health and safety issues is a critical component in preventing injuries and illnesses, and in improving health, safety and wellness at the site. And if you don't actively work on maintaining communication, it eventually slips. We often talk about the need to manage health and safety (it doesn't look after itself). Well, the same is true for communication. Don't work on it, and it eventually becomes miscommunication, gossip or hearsay.

WHAT to talk about

What do we talk about at these meetings? The content is critical. What do you want to tell your staff? What do you want them to think about and



learn? What information do you want from them? (You don't want to lecture; you want to look for ideas and solutions from the staff.)

The meetings can be training sessions when, for example, you have a new piece of equipment or are starting on a new project. Or they can be working meetings that focus on areas such as reviewing safe work procedures or identifying the hazards in a job.

Other topics might include:

- Seasonal concerns – both weather-related issues (sun protection, working in the cold) and the types of jobs underway (paving stops in winter, but Christmas lights need to go up).
- Results of recent inspections – things that are working well and need to be celebrated, as well as problems that need to be discussed.
- Incidents – not only the serious ones, but also the minor ones and near misses. Discussions of incidents provide a great opportunity to review the systems in place to protect workers and to find out if they are working as well as they should.

Some organizations have trouble identifying issues for office staff to discuss, partly because they have trouble identifying the hazards. Musculoskeletal injuries are often a significant issue for office staff who perform repetitive motions and heavy lifting or work in static postures. Stress can be a significant factor. Again, get the staff to identify concerns. Some issues raised might not be traditional health and safety concerns, but anything that impacts the well-being of staff is fair game for discussion.

Some issues raised might not be traditional health and safety concerns, but anything that impacts the well-being of staff is fair game for discussion.

HOW to hold a safety meeting

Your meetings may be formal (with tables and chairs, agendas and props) or informal, held right in the work area (hence the terms "toolbox" or "tailgate" meetings).

The structure of your meetings will depend on the content and goals, as well as on what your organization is like. What is the culture? How developed is the health and safety program? How extensive is the workers' knowledge of and involvement in the program? What are the specific job requirements? What other methods of communication are in place? What other health and safety-related meetings does your organization hold (for example, a joint health and safety committee, senior management health and safety meetings)?

Try to think about your message from the point of view of the participants. Does this make sense? Is it relevant, timely, etc.? What would be the best way to ensure

that participants absorb and understand the message?

Also consider the best time of day and the day of week to hold the meetings, the impact of shift work on attendance and whether to bring in workers who work in remote areas.

Even when you're all fired up and have a plan, consider:

- Demands on the workers' time. Matters like production and customer service can fight for workers' attention. You have to think of safety meetings as an investment in time. While you can't find more hours in the day, effective health and safety meetings contribute to improved production and customer service.
- Ways to keep the workers interested. Show them how the discussions are relevant. Don't hold a meeting just because the health and safety coordinator says you have to. Figure out what the issues are – what sorts of incidents have been happening, especially the minor stuff that never really gets dealt with. What has been showing up in inspections? What are workers talking about? What new jobs are being introduced? Have you had a health and safety audit recently? If so, is there anything there that should be discussed?
- How to encourage participation. Assuming the topic is relevant, getting the participants involved will look after itself to some degree. Take into consideration personality types: some people prefer to sit back and observe, while others tend to take over any discussion. Workers need to know that they won't be laughed at, or shot down if they volunteer ideas and comments.

If safety meetings are well thought out, with meaningful content, and if everyone is invited to actively participate, the meetings will be effective and the workers' knowledge and skills will improve as a result. This is time well invested, as time savings will show up down the road. A more efficient and effective organization – which is a safer and healthier organization – can get the work done with fewer interruptions, incidents and customer complaints.

Rose Ann McGinty is the program services coordinator with the Alberta Municipal Health and Safety Association. She has a diploma in industrial hygiene technology and has over 15 years' experience in the field of health and safety. Before taking on her current job, she was an occupational health and safety coordinator in private industry and an occupational health and safety officer with the provincial government.

Resources

WEB LINKS

www.eig.com/smodex.html#accidents
The index to several hundred safety meeting outlines and support materials.

www.webworldinc.com/wes-con/safety2.html-ssi#topics
Tail Gate Safety Meeting Topics.

www.osh.net/articles/archive/OSH_Basics_2002_Jan30.htm
The anatomy of a safety meeting.

safety.army.mil/pages/training/trainmeet.htm
Hundreds of topics and resources for safety and tailgate meetings.

www.hanford.gov/fire/Fire_Prevention_Month/Planning.htm
Planning a safety meeting.

IN THE ALBERTA GOVERNMENT LIBRARY – LABOUR BUILDING

Books

World's Greatest Safety Meeting Idea Book
by Art Fettig
Battle Creek, Michigan: Art Fettig's Grow . Unlimited Inc., 1990
(HD 6962 F473 1990)

More Great Safety Meeting Ideas
by Art Fettig
Battle Creek, Michigan: Art Fettig's Growth Unlimited Inc., 1991
(HD 6962 F471 1991)

Videos

How To Conduct a Safety Meeting: A Part of Your Job, 15 min.
Provides line supervisors and managers with essential points for planning and conducting safety meetings. (VC0166)

Safety Meetings: Give 'em What They Want, 15 min.
Shows managers, supervisors and team leaders how to conduct safety meetings. (VC0327)

How to Use Wrist Rests

by Ray Cislo

Wrist rests for computer keyboards and mice have become commonplace "ergonomic" accessories. Soft to the touch and comfortable for the hand and wrist, they seem to provide the natural answer for avoiding hand, forearm and shoulder pain.

How useful are they really? Like most tools, they have the potential to help or harm you, depending on whether you use them as intended. If you are going to use a wrist rest, make sure you know how to use it correctly.

A wrist rest is typically a strip of cushioning material that sits in front of a keyboard, mouse, or other input device. It can be made from padded plastic, foam, gel or other similar materials. Wrist rests come in various shapes and degrees of softness.

The use of wrist rests need not be limited to computers and keyboards. Wrist rests can also be used to provide cushioning and prevent injury during small parts assembly and laboratory activities, for example.

The purpose of the wrist rest is to keep the wrist straight during keyboard use (not bent up or down), provide padding that a table or desk can't, and help relieve some of the tension in the arms that comes from keyboarding.

Use proper keyboard technique

Persons trained to use a keyboard are taught to keep their wrists straight and have their hands float over the keys. However, many of us never received this training and, not knowing any better, drop our wrists to the desk surface. This causes our hands to bend upwards, hyperextending the wrists and increasing the risk of injury to the nerves and tendons of our hands and forearms due to awkward postures (see Figure 1).

This position also means that our wrists sit on the desk's hard surface or a sharp edge, putting unwanted pressure on the heels of our hands and the nerves, tendons and blood vessels passing through the wrist. Some keyboard users place their keyboard at the edge of the desk, forcing them to float their hands over the keys, since there is no desk on which to rest the hands.

Use the wrist rest only between periods of typing

The wrists should only rest on the wrist rest *between* periods of typing, not all the time. Some users hold their wrists to the rest in a fixed position, rarely or never moving them. With their wrists fixed in this position, these users then depend on extended fingers and sideways wrist motion to reach the keys (see Figure 2). These repetitive, unnatural motions can lead to injury. The whole arm, starting with the shoulder, should be used to reach keys far from the home row. Avoid having the wrists and fingers reaching from one end of the keyboard to the other.

Constantly leaning or pressing the wrists into the wrist rest can also put excessive pressure on the nerves, tendons and blood vessels passing through the wrist. This leaning or pressing can increase the risk of injury – one of the problems that using the wrist rest was supposed to correct in the first place.

Are wrist rests for everyone?

No. In the end their use is a matter of personal preference. If a wrist rest helps, use it, as long as you understand what it's supposed to do and use it as intended.

Ray Cislo, P.Eng., B.Sc., (H.K.) is a safety engineering specialist at Workplace Policy and Standards.

To avoid injury

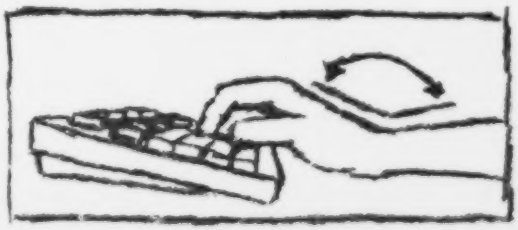


Figure 1 DON'T type with your hand flexed.

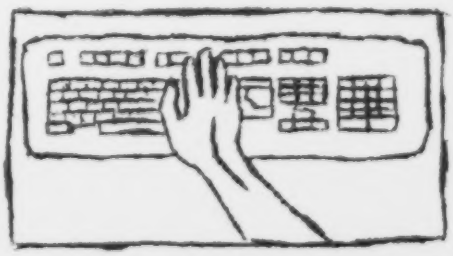


Figure 2 DON'T type with your hand bent sideways.

Choosing a wrist rest

- It should be free of sharp edges.
- It should provide a soft, comfortable support that takes the shape of the wrist and heel of the hand.
- Its height should be approximately level with the keyboard's front edge.
- It should run the entire width of the keyboard or mousing area.

SAFETY MOV

in Residential Construction

Alberta Housing Starts in 2002

- There were 28,511 housing starts in Alberta between January 1 and September 30, 2002. Almost 11,000 of these were in Calgary, and almost 9,000 in Edmonton.
- The province-wide housing start figures at the end of the third quarter were 37.2% higher than a year ago (an increase of 58.6% in Edmonton, 31.1% in Calgary, 26.0% in Grande Prairie and 22.0% in Red Deer).
- At the end of the third quarter, 2002 was promising to be the second biggest ever for housing starts in Alberta.

Between June and September 2002, 5 of Alberta's 8 occupational fatalities involved construction-related falls.

Lost-Time Claim (LTC) Rate by Size of Employer (Alberta Construction)

Size of Employer (Person Years)	Lost-Time Claim Rate (%)
1 - 9	5.3
10 - 19	5.0
20 - 39	5.0
40 - 99	4.3
100 or more	3.0
Average LTC Rate:	**4.3**

Source: Alberta Human Resources and Employment, Occupational Injuries and Diseases in Alberta, Construction, 1997 - 2002; Alberta Construction Safety Association Industries, July 2002.

by Anita Jenkins

Burke Perry believes it's time for change – time for residential construction to make safety a priority. In May 2002 the president of the Alberta Home Builders' Association (AHBA) wrote to association members, "As busy as the industry is in Alberta, we can ill afford to lose any workers to any kind of lost time injury." Perry is one of the drivers behind a new province-wide initiative to improve safety at residential construction work sites. A joint safety committee of AHBA and Alberta Construction Safety Association (ACSA) members launched the initiative with the hiring of two safety advisors to work exclusively with small businesses and focus on residential construction companies.

These safety advisors are participating in a "ride-along program," as ACSA executive director Gary Wagar describes it. They will travel to housing sites with the project supervisors and point out the hazards they see during their visits, as well as offering safety-related information to the subtrades. "The AHBA has asked us to be more visible," Wagar says, "so we are planning to drive around in green vans with yellow markings."

"The idea," Perry says, "is not to emphasize policing or fining so much as education and training about safe ways of working." This approach, says AHBA executive director Grant Ainsley, is more likely to get buy-in from builders and tradespeople.

As busy as the industry is in Alberta, we can ill afford to lose any workers to any kind of lost time injury.

This new program is "a definite change in direction for our members," Ainsley says. "The residential construction industry has had a lot of challenges over the years when it comes to safety programs. For example, most companies are quite small – they typically construct fewer than ten homes a year. Of the AHBA's 1,100 member companies, only one that Ainsley is aware of (Homes by Avi in Calgary) has a designated safety director – and even that person also has duties on the construction side of the operation.

In many cases these days, Ainsley observes, companies that want to bid on jobs in commercial and industrial projects are required to have a certificate from SECORP (the Alberta government's Small Employer Certificate of Recognition Program). "But that never happens in residential construction," he says. "The customers almost never ask about your safety record. For this reason, along with others, there hasn't been the need, the pressure and the drive to do better in this respect."

Wagar agrees that residential construction safety is an area that needs attention. He quotes the figures showing a higher-than-average lost-time claim rate in the whole construction sector and an even higher rate when looking only at companies that are small.

Provincial health and safety inspector, Alain Langlais, confirms the assessments provided by Ainsley and Wagar. At the same time, however, he is guardedly optimistic about recent improvements he has been seeing in this area.

This initiative has big, big, support from the builders.

Langlais believes that an increase over the past three years in the number of government inspections done at residential construction sites is starting to show some results. "There is movement," he says. "More operators have the appropriate safety equipment. Now we just have to get to the next stage, which is ensuring that they use that equipment regularly."

Momentum for change, as Langlais points out, has begun to pick up throughout Alberta. Indeed, it was the determination of several associations to improve safety levels in residential construction that propelled the formation of the joint AHBA/ACSA Safety Advisory Committee and its new safety program. In late 2001 the Calgary Region Home Builders' Association had set up a safety committee and discussed hiring a safety inspector or advisor to work with their builders' direct employees and trades to create a safer work environment. Not long after, the Greater Edmonton Home Builders' Association also started looking at safety initiatives. "Then we thought," says AHBA's Ainsley, "why not have this activity throughout the province?" Since a portion of the Workers' Compensation Board – Alberta (WCB) fee paid by AHBA members goes to the ACSA, it made sense to work directly with the ACSA. That led to the inception of the joint safety committee and ACSA's commitment to hiring the safety advisors.

In the fall of 2002, the joint safety committee, which includes representatives of the provincial government's Workplace Health and Safety office and the WCB, hired the advisors, one for northern Alberta and one for the southern part of the province, including Red Deer.

Perhaps the time for greater attention to safety in residential construction has come. Burke Perry knows a greater emphasis on safety will save time, delays, paperwork, stress, money and preserve workers' health and happiness. He's proud of the new initiative and the backing it's received from the industry. "We're doing it because it is the right thing to do," he says, "and it has big, big, support from the builders."

Anita Jenkins is a freelance writer and editor living in Edmonton.

Real World Solutions

What improvements have you made at your workplace?

Real World Solutions is a regular column that suggests simple, inexpensive ways to improve employee safety and health through adjustments to the workplace. If you've found a solution worth sharing, please send it to ray.cislo@gov.ab.ca.

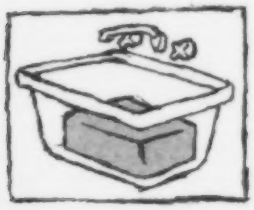
Pouring liquids

The Problem
Large-volume containers filled with liquids can be difficult to pour. The liquid can move about and be a significant hazard if it's hot, like soup or molten metal, or because of the chemicals it contains.

A Solution
Use pouring containers that tilt. You should be able to reach the tilt handle or mechanism without bending. The tilt handle or mechanism should make controlling the weight of the container and liquid easy for the worker.

Benefit
Avoids possible injury by eliminating the need to lift and carry containers filled with liquids. Reduces risk of spills and burns, speeds the process and reduces waste.

Reaching into a deep sink



The Problem
Cleaning small objects in deep sinks can require excessive bending and stooping. If done for long periods of time, low-back and shoulder pain may result.

A Solution
Try artificially raising the bottom of the sink. Raise the work surface by placing a basin or tray in the bottom of the sink.

Benefit
Avoids back and shoulder pain.
Avoids having to replace the sink with a shallower model.

Workplace Fatalities

Occupational Health & Safety Magazine publishes Workplace Fatalities to remind readers of the importance of workplace health and safety.

The information is not a final investigation report. In many cases investigations are continuing. Final investigation reports are filed at the Alberta Government Library – Labour Building Site and can be reviewed there or on the Workplace Health and Safety Web site at **www.whs.gov.ab.ca** under Fatalities.

An occupational fatality refers to the death of a worker caused by a work-related incident or exposure.

To protect personal privacy, the fatality descriptions do not include the names of the deceased.

Work-related incident fatalities June 2002 - September 2002

Most work-related incident fatalities that fall under provincial jurisdiction are investigated by Workplace Health and Safety. In general, highway traffic, farm, disease or heart attack fatalities are not investigated.

The following fatalities have been or are being investigated.

A 50-year-old worker was approaching a moving tractor-trailer to retrieve his lunch pail, when one of the trailer's right dual wheels pinned the worker's right foot. He was forced to the ground and subsequently run over by the four right sets of trailer wheels.

A 20-year-old flag person was standing on the shoulder of the highway when she was struck by a cube van. Vehicles were slowly passing her in the driving lane adjacent to the shoulder, when a van drove onto the shoulder after colliding with one of the vehicles in the driving lane. The van then struck the flag person.

A 53-year-old roofer was crouched at the edge of a roof, preparing to start shingling, when he fell 2.26 metres onto a concrete driveway. The worker was taken to hospital, where he later died of his injuries.

A 50-year-old welder was working outside on top of a gymnasium under construction. He was securing the last of five tie-in points between two metal roof joists when two other workers climbed onto the joist that was supporting him. This destabilized the joist and dislodged it from the wall. The joist and all three workers fell approximately 9 metres to the ground. Two were injured, and the welder died.

A 57-year-old boom-truck operator was working as part of a utility crew on a construction site. The three-man crew was taking a voltage reading on a recently installed pad-mount (ground) transformer. The crew mistakenly attempted to take the reading from the high-voltage (25,000-volt) side of the transformer instead of from the low-voltage (600-volt) side. As one worker began to attach the voltage meter leads to the live electrical phases, a 25,000-volt electrical current arced from the transformer,

killing one worker and causing minor burns to another.

A 20-year-old framer died when he fell from the roof trusses of a single-storey house under construction. He and his supervisor were standing on the trusses as a crane lifted a bundle of oriented strandboard (OSB) sheathing onto the trusses. As the crane lifted the 910-kilogram load, it slipped off the forks of the crane and fell onto the trusses, which collapsed. The supervisor and framer fell 3.35 metres to the concrete floor, with the trusses. The framer died from his injuries.

An 18-year-old construction worker was climbing to the fourth level of a partially completed scaffold to continue building the scaffold. When he stepped onto an unsecured scaffold plank, the plank slipped and the worker fell 7.8 metres onto the concrete floor. The worker died from massive injuries.

An 80-year-old volunteer worker and his helper were removing and replacing temporary roof-truss bracing with permanent bracing on previously installed roof trusses. The worker and his helper climbed onto the roof-truss structure and began removing some of the temporary bracing. As the bracing was removed, the recently placed roof trusses collapsed. The worker fell 3.7 metres to the ground and several trusses fell on top of him. He suffered a fractured femur and sternum and died in hospital due to complications from his injuries.

Occupational disease fatalities accepted June - August 2002

Disease fatalities represent claims that have been accepted by the Workers' Compensation Board (WCB) – Alberta for compensation. They are counted in the year they are accepted.

Occupational disease fatalities consist mostly of deaths caused by recognized occupational disease, meaning disease known to be primarily or exclusively work-related (for example, asbestosis, black lung disease). Occupational diseases are frequently diagnosed many years after the initial or crucial exposure to the toxic substance, and it can often be very difficult to determine when the fatal exposure occurred.

Occupational disease also includes heart attacks suffered on the job. The most frequent occupational disease fatalities accepted by the WCB in recent years concern exposure to asbestos fibres.

In 2000, 28 per cent of the total WCB-accepted fatalities resulted from occupational disease.

The following workers died from exposure to asbestos.

A 47-year-old electrician, who was exposed to asbestos for the last 30 years while working in power plants and construction sites. He contracted lung cancer as a direct result of his asbestos exposure.

A 59-year-old insulator, who was exposed to asbestos through his work in the 1960s.

A 67-year-old electrician, who was exposed to asbestos at various construction and industrial plant work sites between 1959 and 1982.

A 73-year-old plasterer, who was exposed to asbestos in the workplace over a period of more than 30 years.

A 75-year-old tower operator, who was exposed to asbestos over a prolonged period while involved in the processing of nitric and sulphuric acid.

A 76-year-old painter, who was exposed to asbestos while applying fireproofing spray paint.

A 77-year-old maintenance worker, who was exposed to asbestos in the 1960s while insulating pipe and tanks in a pulp and paper mill. Asbestos-related medical problems developed over time, resulting in respiratory failure.

An 80-year-old plasterer, who was exposed to asbestos over a period of time prior to the 1980s. He developed asbestos-related lung disease.

An 81-year-old mechanic, who was exposed to asbestos throughout his employment from 1946 to 1975, developed asbestos-related occupational illness. He died from respiratory arrest and heart failure.

The following workers died from other occupational diseases.

A 78-year-old labourer, who worked as a coal miner from 1939 to 1965. The worker's exposure to coal dust over a 26-year period caused pulmonary fibrosis that resulted in respiratory failure.

A 40-year-old labourer, who suffered severe long-term disability from extensive burns, shock and cardiac arrest sustained in a work-site incident. He died from latent onset of respiratory complications related to his injury.

A 45-year-old truck driver, who suffered permanent disability after falling from his vehicle. He died of complications related to his injury.

A 39-year-old pressure welder, who was exposed to dust and fumes from galvanized metal, which aggravated his asthma and ultimately caused respiratory failure.

A 50-year-old truck driver, who suffered post-traumatic-stress disorder after his involvement in a multi-vehicle crash. He died from complications related to his injury.

A 57-year-old truck driver, who suffered a leg injury while mounting a high hitch on his truck. He died from a series of infections and complications related to his injury.

A 68-year-old truck driver, who was struck across the back of his legs by the blade of a bulldozer in April 1998 and sustained injuries to his shoulder and both legs. The injuries led to complications, resulting in vascular obstructions in his lower limbs. He died from a brain hemorrhage.

A 65-year-old serviceman, who sustained second- and third-degree burns to 50 per cent of his body in 1957. Later surgeries related to the burn injuries caused complications and resulted in respiratory failure.

A 77-year-old forestry worker, who was struck by a falling tree in February 1981, suffered a severe back injury and thoracic paraplegia as a result. Complications from his injuries and longstanding paraplegia led to pneumonia and acute respiratory failure.

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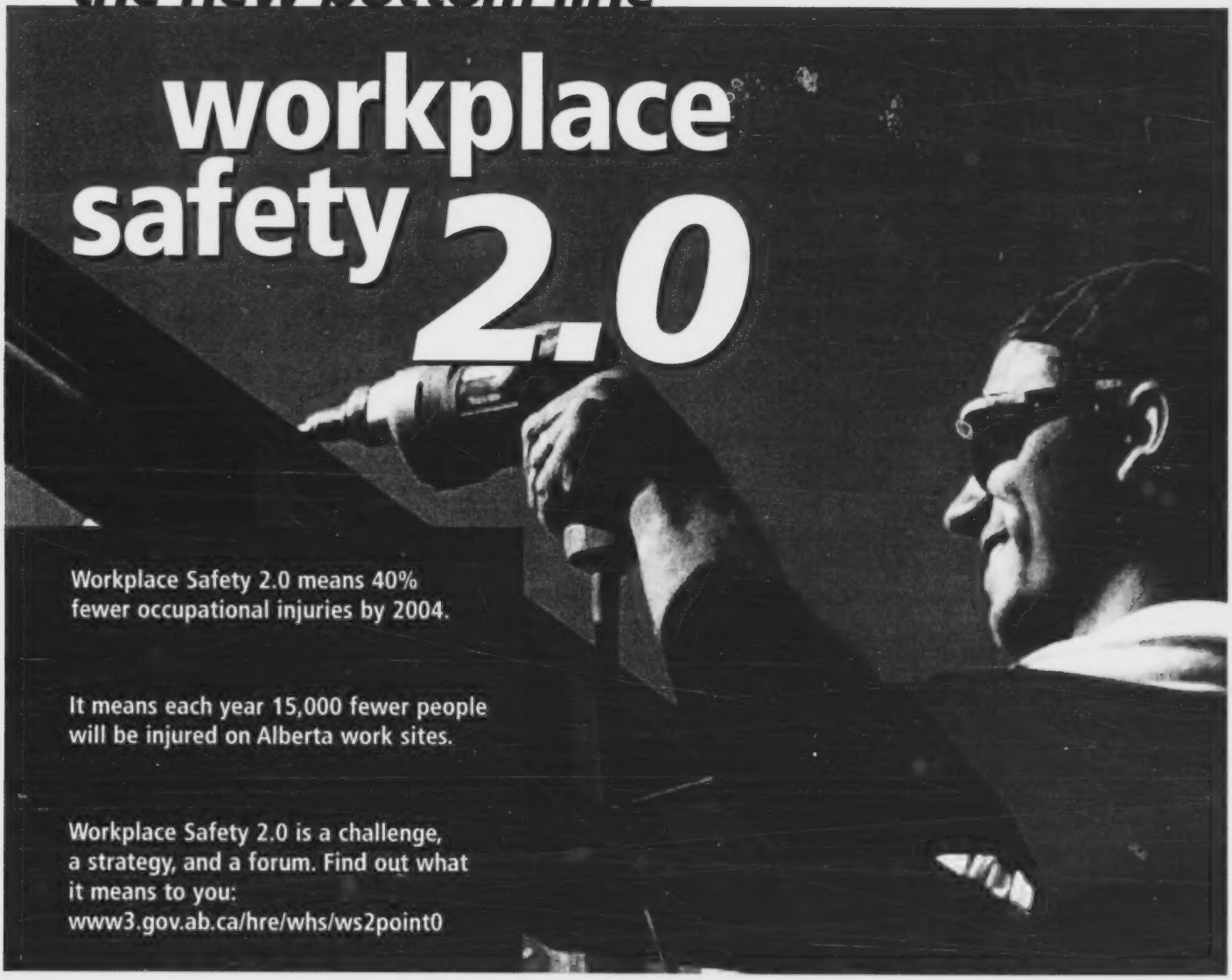
the people & workplace department

the new bottom line

workplace safety 2.0



Workplace Safety 2.0 means 40% fewer occupational injuries by 2004.

It means each year 15,000 fewer people will be injured on Alberta work sites.

Workplace Safety 2.0 is a challenge, a strategy, and a forum. Find out what it means to you:
www3.gov.ab.ca/hre/whs/ws2point0

What part do *you* play?

Workplace Health & Safety Call Centre
1.866.415.8690